

PINPOINTING REASONS FOR MAINLAND COLLEGE STUDENT
ATTRITION IN HAWAI'I

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Abstract

Although the number of students entering college in the United States continues to grow, a greater number of students, especially at-risk students (e.g., White first generation, Black, and Latino college students) are failing to obtain a degree. Contrary to schools on the continental United States, at the University of Hawai‘i at Mānoa, students from out of state, who are predominantly White, are the most likely to leave the university before obtaining a degree. Using a mixed-methods approach, the present research seeks to understand why this group of students—who are not typically considered at-risk—is failing to persist. Historically it has been difficult to know if attrition occurs because of experiences while at the university or because of previous learning, behaviors, and individual differences related to academic success that students bring to the university. I examined these issues considering factors from Tinto’s (1987) and Bean and Eton’s (2000) models of persistence and different levels of university and Hawai‘i based identity. In Study 1, potential predictors of persistence were reviewed through a quantitative survey of 73 students (27 White, 45 East Asian). In Study 2, qualitative interviews with 9 out of state, White students, investigated motivating factors of attrition. The interview results were then used to triangulate and add depth to survey data. Results indicated that intention to persist was more strongly tied to students’ sense of belonging with both the university and the local population than to students’ college skills or academic mindsets. For both students from out of state and from Hawaii, the strongest associations with planned persistence emerged with the non-academic psychological measures (e.g., similarity with various groups and university belonging). Interestingly, for out of state students, feelings of similarity with “Hawaii locals” was most strongly associated with plans to persist through graduation.

Interviews more fully illustrated the struggle out of state students faced in both finding a sense of belonging in Hawai'i and in initiating cross-cultural friendships as well as their desire to learn about new cultures in Hawai'i. While more research is needed to understand both this process and the potential implications of these findings, this research illustrates psychological mechanisms that may be important for improving persistence for all students.

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Pinpointing Reasons for Mainland College Student Attrition in Hawaii

Having a college degree is said to increase lifetime earnings by an average of over two million dollars (Carnevale, Rose, & Cheah, 2011). Unfortunately, more than 40% of full time students who enter a four-year university do not graduate. The rate is far worse for two-year institutions, with more than 65% leaving without a degree (National Center for Education Statistics, 2006). Student attrition is seen by some as one of the most pressing issues in higher education (ASHE-ERIC Higher Education, 2004). Universities are aware of the problem, and its impact on their bottom line. But even with years of research and universities' investment in programs to deal with this issue, average retention rates have stayed relatively stagnant for decades, even though more students than ever are attending college (Reason, 2009; Tinto, 2006). My research seeks to examine how the college environment influences students' sense of belonging at a university with a unique racial makeup. I plan to use this research as the first step towards tailoring an intervention to increase students' sense of belonging in order to increase the likelihood of persistence into the second year, and ultimately, degree completion.

One persistent issue in higher education relevant to student retention is the race-gap. Holding all else constant, race is significantly correlated with graduation rates even within the same institution (National Institute of Independent Colleges and Universities, 1989; Tinto, 1987). Underrepresented minority groups, such as those with African, Caribbean, Latino, or Native ancestry, average much lower graduation rates than those with European or Asian ancestry. While standardized test scores combined with High School GPA help to predict persistence to graduation for White students, these and other academic markers do not explain the differing graduation rates based on race (Astin, 1982; Tracey & Sedlacek, 1984, 1985).

Race of the individual combined with the racial makeup of the university appear to influence college persistence (Tracey & Sedlacek, 1987). For example, a Black student will have a different college experience if they attend a Historically Black College than if they attend a school where Black students are in the minority. Unfortunately, it is difficult to know how much of this influence can be attributed directly to the university environment since an underrepresented minority college student also possesses an identity already shaped by their life experiences as a racial minority. Having a better understanding of how the university environment impacts student retention and persistence would help facilitate college retention and graduation rates for all students.

In the present study, I seek to contextualize the impacts of minority status on the college experience by examining how social factors within the college environment impact the decision to persist at the same institution through to graduation. Through examining the role of identity and sense of belonging in students who change in their majority or minority status by virtue of changing locations, I hope to broaden the understanding of the psychological factors in the social environment that impact persistence. Specifically, I will examine students who have moved to Hawaii where the majority of students and residents of the islands are Asian (U.S. Census Bureau State & County QuickFacts: Hawaii, 2015). Therefore, Asian students from other states experience a shift from racial minority to racial majority status, while White students experience a shift from racial majority to racial minority status. Stemming from this shift in majority/minority status, I will explore the role of identity and social belonging in persistence to graduation by examining student's identity as a college student and their sense of belonging at their university.

The path I propose to increase retention rates is not new, however, I hope that this research will lay the groundwork needed to create a successful intervention for those typically viewed as privileged majority members, but within their current environment are showing outcomes that mirror underrepresented minority students. By looking at the reasons why these students are more likely to leave an institution where they are in the minority, I hope to uncover the social psychological stressors related to the minority college experience. By showing that these stressors impact outcomes of those who would be expected to succeed, I expect to provide evidence that regardless of prior experience, the college psychosocial environment can impact student persistence.

Social Identity

Understanding social identity is crucial to understanding how students cope with a new college environment. Tajfel defines social identity as, “that part of an individual’s self concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership” (1981, p. 255). While social identity requires membership in a group, someone can be a member of a group but choose not to identify as such (Brewer, 1991). Adopting the identity of another gender would be one example of someone choosing not to identify with his or her prescribed group membership. When a group does become a part of a person’s identity, that group is then used as a reference group for norms and values (Crocker, 1999). One’s social identity, therefore, acts as a subjective influence on attitudes, decisions, and behaviors.

Not only does one’s social identity impact attitudes, decisions, and behaviors, but it also affects one’s personal interpretation of that behavior—shifting from perceiving behavior and actions in terms of the self to thinking about them in terms of the group (Turner, Hogg, Oakes,

Reicher, & Wetherell 1987). From an evolutionary perspective, choosing to be a member of a group or tribe offers a host of benefits. Individuals accepted into a group are able to pool and share resources, divide labor, and increase the likelihood of procreation (Baumeister & Leary, 1995). The ease with which we rely on group identification to allocate resources can be seen in the minimal group effect (Billig & Tajfel, 1973; Rabbie & Horwitz, 1969; Rabbie & Wilkens, 1971; Tajfel, Billig, Bundy, & Flament, 1971). The minimal group effect demonstrates that being arbitrarily categorized based on a minor commonality such as painting preference or eye color is enough for ingroup bias to occur. People consistently show ingroup loyalty and allocate more resources to fellow group members, simply based on group assignment along a meaningless dimension. This minimal group paradigm illustrates how creation of groups is both an attractive and readily accepted part of life as a social being.

An essential aspect of social group membership is to create bonds with other humans or a sense of belonging in that social group. A feeling of belonging to a minimal group can increase persistence and improve cognitive performance (Walton, Cohen, Cwir, & Spencer, 2012). However, it is unlikely that a single shared characteristic not tied to personal identity (i.e., as in minimal groups) is enough to warrant the ongoing feeling of group cohesiveness necessary for a true sense of belonging. Individuals have a wide selection of groups they can choose to associate with, and even within one category they can choose to instead associate themselves with a smaller, more specific group within the larger population (Ashmore, Deaux, & McLaughlin-Volpe, 2004). This flexibility in which social groups one can chose to identify with provides some choice in the process of forging a strong social identity, which allows one to build more meaningful bonds with others and feel a sense of belongingness. Within the college context, there are a variety of levels of potential social groups for students to identify with (e.g., a sport,

club, or major) and thus a variety of opportunities to feel a sense of belonging with one of those identities. Decisions to persist may depend on the identity the students choose to endorse.

Bronfenbrenner's (1992) Ecological Systems Theory is a developmental theory describing the different levels with which the ongoing reciprocal interactions between the person and their environment influence that individual. This framework can be used to visually illustrate the different levels of common student identities. As illustrated in Figure 1, self-identity is at the core of this theory. Although self-identities are influenced by interactions with others, these identities are internal beliefs held by a person about themselves. This level of interaction is labeled by Bronfenbrenner as a person's microsystem, or beliefs gained from face to face interactions. The next level illustrated involves salient ingroup identities. Since these identities involve a person's interaction within multiple settings, Bronfenbrenner would categorize this as a mesosystem. In college, the university typically exists as an exosystem, particularly for those students living on campus, or those who have relocated for schooling. An exosystem contains interactions between multiple settings; at least one of these settings indirectly influencing a person's day to day lifestyle. So, if a student lives on campus, or has moved to attend college, the college environment impacts a significant majority of their lifestyle. By looking at conditions within these multiple settings, I hope to understand whether social identification at certain levels leads greater persistence. Additionally, these social identities are situated within settings that inform their meaning and their contextual salience. When these identities are threatened by cues present in these settings (e.g., the University context), students can lose their sense of belonging to that group, causing a number of negative outcomes. An understanding of belongingness is important to understanding the process and impacts of such identity threat.

Belongingness

Belongingness is the desire to seek out enduring interpersonal relationships that are meaningful and positive. Central to the human experience, this quest for belongingness is considered to be one of the fundamental human desires, and is found cross-culturally (Baumeister & Leary 1995; Maslow, 1968). A number of benefits have been tied to a feeling of belongingness including increased feelings of self-efficacy (Greenway, Haslam, Cruwys, Branscombe, & Ysseldyk, 2015), academic motivation (Good, Rattan, & Dweck, 2012), and reduction in stress (Haslam & Reicher, 2006).

From Baumeister and Leary's (1995) perspectives, two components are central to achieving belongingness. The first is frequent positive interactions with the same individual or group of individuals. In order to feel connected to someone, time and proximity are needed to truly get to know them. However, if these interactions are viewed as strained or frustrating, it is unlikely that a connection will be formed. Instead, these interactions require persistent caring: the second necessary condition for belongingness. When time, proximity and caring occur in combination, a sense of belonging is more likely, but not guaranteed, since personal agency allows a choice of with which individuals or groups to associate. This choice can be influenced by the same thing that helps groups form in the first place: the current situation. Asch (1952, p.142) states that group formation first requires a "mutually shared psychological field". This field is the intersection of the thoughts and feelings of three things: the self, others and their reactions, and the present situation. The last part, the situation, is an often understudied aspect of group interactions (Deaux, 1992). Brewer (1991) also emphasizes that individuals strive for optimal distinctiveness in their social identities (i.e., striking a balance between inclusion within a group identity while maintaining her or his own individual distinctiveness, and that finding an

optimally distinct identity depends on the current context, with ingroup identification expanding or contracting when the situation changes the salience of various nested identities. This lack of focus on the situation is not a new issue, as Lewin wrote in 1939 (p. 10), “It is a simple fact, but still not sufficiently recognized in psychology and sociology, that the behavior of a person depends above all upon his momentary position.”

Sense of belongingness can play a key role in students’ success in higher education and may depend on whether students expect to belong in a university setting. Most importantly, belongingness can be manipulated by changing aspects of the setting, which has implications for academic achievement. For example, Walter and Cohen (2007) created a situation that highlighted belonging uncertainty. In this setting of belonging uncertainty, Black, but not White, students experienced a reduced sense of fit at their institution, and a diminished belief that they could succeed within their field. However, after a brief belongingness intervention, the Black students showed an increase in academic engagement and even improved GPAs compared to both the control condition and other Black students at the university. This minor intervention had lasting ramifications as GPAs for students receiving the intervention remained elevated for the following three years. Other belongingness interventions also show promising results. For example, at one university a belongingness intervention increased the number of disadvantaged students enrolled full time (Yeager, Paunesku, Walton, & Dweck, 2013). At another university without an attrition problem, a different belongingness intervention focused on a cultural connection was able to increase the GPAs of disadvantaged students (Yeager et al., 2013).

How can such a brief intervention change an outcome so dramatically? Cohen and Garcia (2008) have illustrated the process of how a threatened identity through belonging uncertainty can lead to lower performance. As seen in Figure 2, there are multiple steps in the

process between noticing identity threat and this threat impacting performance. Interventions can work to change the situation at any time in the process in order to avoid negative outcomes.

Once an identity is salient, a person then looks to see if this identity is threatened. If this threat is not confirmed, then identity threat is unlikely to persist. Therefore, one potential intervention involves presenting cues that counter this threat. Murphy, Steele, and Gross (2007) showed that women in STEM have reduced stress and feel a greater sense of belonging when the environment was changed to include more females. To conduct this study, these researchers invited males and females who highly associate themselves with STEM to evaluate a potential STEM focused conference. Two versions of the potential conference were shown to the participants. Everything remained the same, except that one video included a majority of men conference attendees, while the other video portrayed both genders equally. When females watched the male dominated video, they exhibited a higher stress reaction (based on physiological markers) to the male dominated videos compared to the gender-balanced video. Conversely, females' sense of perceived belongingness at the conference improved when they watched the gender-balanced video. Some aspects of the college environment share similar traits with this conference environment (i.e., certain social groups may be more represented within a university or within certain disciplines). Therefore, potentially changing the makeup of the college environment may serve as a way to disconfirm that an identity is being threatened.

If, on the other hand, identity threat is confirmed, then a person will attempt to find a way to cope with the threat. This is another area where interventions can change outcomes. Another belongingness intervention involves first year college students learning that it's normal to initially feel as though they don't belong (Stephens, Hamedani, & Destin, 2014). By setting this expectation, students can focus on changing the situation by immersing themselves in activities,

and meeting new people. Through proactively coping with the situation, instead of ruminating about the issue, Cohen and Garcia's (2008) model would anticipate that these students would avoid the decreased performance that occurs when those under identity threat are unable or unmotivated to cope with the threat.

I hypothesize that students coming from out of state to college in Hawaii will attribute the typical feelings of belonging uncertainty felt by new students not to the new situation, but instead to the new environment. Since this new environment puts White students (who are used to being in the racial majority) in the numerical minority, this could cue identity threat. If the student feels as though the easiest solution is to change environments instead of working on forging a sense of belonging, it easily follows that the student would choose to transfer schools.

Identity in Context

This research seeks to better understand the situational factors of student attrition at the university level, specifically focusing on the transition and experience of being in the majority in high school to (perhaps unintentionally) becoming a numerical minority in college. I will focus on the unique environment of Hawaii and students' transition to college in Hawaii.

Social and racial environment of Hawaii. Hawaii is a unique state as far as ethnic/racial makeup, as it is the only state within the United States with a non-white ethnic majority, with a population in 2013 that was 37.7% Asian and 23% White (non Hispanic or Latino).

Additionally, Hawaii hosts the largest percent of self-identified multiracial individuals with 23.1% indicating that they were two or more races (U.S. Census Bureau State & County QuickFacts: Hawaii, 2015). The Hawaiian island chain has been called one of the most isolated areas on Earth, located over 1,500 miles from the closest continent of North America. Therefore, leaving the island, even if only to travel to another, almost always requires flying. When

deciding on where to attend college students from other states may be allowing Hawaii's reputation as a tropical paradise to overshadow the realities of living so far away from home.

Transition to the college environment. I will specifically examine the transition to college for students attending University of Hawaii at Manoa (UH Manoa)—the flagship R1 institution within the state of Hawaii. Moving away to college typically consists of a multitude of challenges, including lessened social support, which can lead to acute stress for many students (Gall, Evans, & Bellerose, 2000). Looking at the statistics for student persistence at UH Manoa, although out-of-state students make up less than one-quarter of the total student population, they make up the majority of students that leave after the first year (MIRO, 2015). This pattern persists even though the average student from out of state comes to the university with stronger academic qualifications than local students. Since increased academic qualifications would normally be associated with an increase in persistence from year one to year two, this statistic points to some mismatch between the student and the university environment. Virtually all students imagine the college experience to be quite different than the actual reality (Tinto, 1987). Most feel a sense of uncertainty and initially struggle to make friends. However, if a student is able to persist into their second year, they are much more likely to graduate from that same institution (Tinto, 1987). I theorize that one of the reasons for the lack of persistence into the second year at UH Manoa, particularly for White students from out of state, is related to the lack of belongingness that these students feel towards their institution and their classmates.

The shift from being in the numeric majority to being in a numeric minority can add to the feeling of a lack of belonging already present during the transition from high school to college. Theoretically, this shift may be even harder for White students moving from a context where they are in the numerical majority to one where they are in the numerical minority, for a

variety of reasons. White individuals are more likely to base their self-esteem on others' approval when compared to those who belong to stigmatized racial groups (e.g., Black individuals; Keer, Crocker, Broadnax, 1995). One way in which stigmatized individuals maintain self-esteem is by attributing negative feedback to prejudice (Crocker & Major, 1989). However, since White students will have only recently moved into the minority, it is unlikely that they have had much experience with stigma or that they have developed such a self-esteem buffer.

Even in lifelong minority members, a lack of a strong racial or ethnic identity can lead to greater experiences of threat and lack of belonging. For example, Ethier and Deaux (1994) found that Hispanic students with weak ethnic identification upon entering college perceived more identity threats than those with stronger identification. The few studies examining ethnic identity in White students in the numerical minority (i.e., at a predominantly racial minority institution) finds that White students do not typically possess a salient ethnic identity compared to racial minority students in similar situations (i.e., at a predominantly White institution). For example, a study by Steck, Heckert and Heckert (2003) examined Black and White students at predominately White universities compared to those at historically Black universities. They found that Black identity salience was higher at predominantly White universities, but White identity salience was not higher at historically Black universities.

The phenomenon of White individuals not including race in their working self-concept is termed white transparency in Sociology (Flagg, 1995). This theory posits that people seen by society as White view race as important to the identity of those with a racial minority status, but as something that does not shape their own behaviors or views. Looking at this phenomenon from a social psychological perspective, a potential explanation for White individuals' expressed

lack of racial identity salience can be found in Brewer's Optimal Distinctiveness theory (1991). Brewer proposes that the purpose of adopting a social identity is to fulfill the conflicting human needs of belonging and differentiation. In order for a group to balance these needs, the group has to both have easily identifiable similarities with one another, and differentiate themselves from outgroup members. While ethnic identity is included in many minority individuals' social identities, White individuals typically do not appear to adopt a white identity, even when in an environment where they are a numeric minority. White students are likely to come from a variety of different locations with varying backgrounds. The color of their skin is unlikely to be a salient similarity to them. In fact, groups based around this idea have a historical association with a variety of atrocities making groups united by being White socially unacceptable. Research by Xu, Farver and Pauker (2015) shows that even when White students attend college where they are a racial numerical minority, these students did not have the expected increase in their ethnic identity over their first semester of college. This provides evidence that being in the numerical minority is not by itself enough to increase racial or ethnic identity.

Instead, White students may form an in-group around another, more specific identity such as home city (Ashmore, Deaux, & McLaughlin-Volpe, 2004). Xu and colleagues (2015) also found that self-esteem decreased in White students during their first year, but yet their ethnic identity was not significantly different from White students attending college in a context where they were in the majority. So potentially, when majority members become a numerical minority, they lack the coping skills used by those accustomed to being in the minority. I hypothesize that part of the reason why White students coming to Hawaii (from a majority White context) are significantly more likely to not return for a second year is that they lack a sense of belonging

with both the university and with the culture in Hawaii and lack the resources to deal with the stress of this very different psychological context.

Psychological Factors Impacting Persistence in School

University context. Another way to look at the issue of student attrition is through Bean and Eaton's (2001) psychological model of student persistence. This model points to twelve factors in the institutional environment impacting the decision to persist within a feedback loop. These twelve psychological factors lead the student to decide if the university is a good fit, and if they feel a sense of institutional commitment, measured by their sense of loyalty towards the university. If a student feels like they fit at a university they are more likely to feel pride and loyalty towards the institution increasing the chance that they will continue at the university.

Schreiner and Nelson (2013) found evidence to support the idea of fit and loyalty by looking at the correlation between satisfaction with the university and plans to persist. While working with data from almost 300,000 students at 61 different universities a variety of factors were correlated with not returning the next year. However, many of the areas commonly assumed to impact retention were associated with departure only for students at specific points in their education. For example, finances are typically cited as a common reason why students cannot finish their education. However, this was found to be correlated with intent to enroll for the next year only for Sophomores. Also, university classification and living on campus are also thought to impact retention, but this was only the case for students in their Junior and Senior years. What was consistent was student satisfaction ratings accounted for the largest amount of variance in intention to return the following year throughout the college career span. Although intention to return is a self reported measure about future intentions, it appears to be the best single predictor of the likelihood of returning (Bean & Eaton, 2000).

When looking at the actual data of which students re-enrolled the following year, the greatest contributing factor to persistence was student satisfaction with the perceived campus climate (Schreiner & Nelson, 2013). Bean and Bradley (1986) define student satisfaction as “a pleasurable emotional state resulting from a person’s enactment of the role of being a student” (p. 398). Belongingness is one aspect of student satisfaction. Five of the eight exogenous factors Bean and Bradley (1986) include in their student satisfaction measure relate to student belonging. These five factors are: institutional fit, academic integration, academic difficulty, social life, and membership in student organizations.

A number of studies have shown that satisfaction with the university predicts learning outcomes as well as student persistence (Bean, 2005; Schreiner & Nelson, 2013). Satisfaction with the University also correlates with positive perceptions of courses and faculty (Gruber, Reppel, & Voss, 2010). Friends’ feelings about the university also matter. Eccles and Stradley (2012) found that, students’ friends’ retention and attrition behaviors are found to have a greater impact on students’ retention than any background or performance variable. This illustrates how those around you, and thus your feelings of connection to those individuals, i.e., your sense of belonging to particular social groups, can impact future decisions about remaining at a university. Although most of the research on satisfaction and belonging has occurred more recently, this is not a new idea. Decades ago Astin (1977) stated, “it is difficult to argue that student satisfaction can be legitimately subordinated to any other educational outcome” (p. 164). Since the majority of aspects of student satisfaction also overlap with feelings of belongingness, an increase in belongingness should lead to an increase in satisfaction, along with the more tangible goal of increased persistence.

Person or self factors. Most research examining academic persistence has examined the role of internal factors (e.g., individual differences) in predicting academic persistence and success. For example, the measures of grit, academic self-control, and locus of control have been found to explain variance in GPA better than using IQ (Duckworth, Peterson, Mathews, & Kelly 2007; Duckworth & Seligman, 2005). The perception of academic efficacy in college (i.e., perceived college skills) has been linked to critical thinking skills, which are typically valued in higher education (Stupnisky, Renaud, Daniels, Haynes, & Perry, 2008). Specific components in the Big 5 personality inventory (i.e., conscientiousness and openness to experience) are also correlated with academic success (Komarraju, Karau, & Schmeck, 2009). Additionally, test anxiety has been shown to have a small, but significant negative correlation with grades (Chapell et al., 2005), and an individual's growth mindset (i.e., whether they think intelligence can change) has been consistently related to greater achievement in students, especially during challenging transitions or when faced with difficult courses (Blackwell, Trzesniewski, & Dweck, 2007; Paunesku et al., 2015; Yeager et al., 2013). Thus, the current study includes measures of these factors, in order to examine whether social identity and belongingness affect student persistence, above and beyond other factors known to be related to achievement and persistence.

Key Psychological Levers

As discussed thus far, there are a number of psychological levers that appear to play a role in student persistence such as social identity, belongingness, identity threat, and minority status. Additionally, these psychological levers are situated within individuals (who bring with them individual factors, e.g., grit, at the level of the self that affect academic persistence) and these individuals are themselves situated within a larger University context. By testing these psychological levers with interventions, we can better understand how to increase persistence

and other measures of student achievement within the relevant ecological context for these students. Common interventions aimed towards increasing belongingness for college freshman include programs such as targeted orientations and cohort based learning communities. Unfortunately these programs are time and labor intensive, and do not guarantee that the students most in need of an intervention will receive them (Hotchkiss, Moore & Pitts, 2006). As discussed earlier, brief social-psychological interventions targeting the need to belong and other mindsets have been shown to mitigate experiences of identity threat or belonging uncertainty (Good et al., 2012; Stephens et al., 2014). These interventions are often easy to implement and lead to lasting benefits for students' education by changing students' perceptions of their own educational processes and experiences (Yeager & Walton, 2011). For example, brief mindset interventions have shown promise in closing the persistence gap for minority students (Yeager et al., 2013). Learning about growth mindsets has also reduced drop-out rates of Black and Latino students at multiple high schools (Yeager et al., 2013). By dealing directly with the non-cognitive factors related to student achievement we can remove the barriers that are known to stymie performance and contribute to attrition. Additionally, because these interventions need to align with the context of the learning environment, they are most effective when tailored to the specific needs of the school (Duckworth & Yeager, 2015; Rattan, Savani, Chugh, & Dweck, 2015; Yeager & Walton, 2011; Yeager et al., 2015)

Therefore, in order to create an effective intervention, research first needs to focus on both the root of the problem and what type of message resonates with the impacted student population. To reduce mainland student attrition in Hawaii I seek to answer questions such as: what is already working well at the university? What social groups do students identify with

within the university? Why do certain students persist, and why do students in one particular category (i.e., primarily White students from the mainland) decide to leave?

Current Research

The current research used a mixed methods approach. I used a quantitative survey to gauge students' sense of belonging, their salient social identities, and their intention to persist. In order to understand this data and account for any areas missed, I also gathered qualitative data through individual interviews. I used the most common mixed methods design: concurrent triangulation (Creswell & Clark, 2007) whereby both the qualitative and quantitative data are captured during the same timeframe and analyzed separately (Greene, Caracelli, & Graham, 1989). The data was then analyzed to identify the extent to which the two studies converged (Creswell, Plano Clark, Gutmann, & Hanson, 2003).

Study 1 consisted of a quantitative survey including various belongingness and identity measures. Broadly, research looking at the experience of majority members unintentionally becoming a numerical minority has been largely ignored (Xu et al., 2015). Thus, I examined how students contextualize their social identity within the unique context of Hawaii and how these social identities relate to their sense of belonging. While the impact of a lack of a sense of belonging seems like a plausible reason for increased attrition, alternative explanations warrant further investigation. Grounded in ecological systems theory, I collected self-reported measures of belongingness on multiple ecological levels in order to understand the potential impact of broader social contexts (Bronfenbrenner, 1992). Figure 3 expands on the previously illustrated levels of student identity to illustrate which measures are tied to the different levels within a student's environment.

Although I hypothesized that lack of belonging is driving attrition in Hawaii, I included other measures at the level of the self that past research has shown impact academic performance and persistence. Identifying the correlations between belongingness and persistence while controlling for other individual differences known to impact academic outcomes should result in the ability to develop a more robust intervention.

Study 1

Method

Participants and procedure. East Asian (Asian) and White mono-racial students residing in the United States were recruited from the University's online psychology participant pool and from announcements made in psychology classes. Participants received partial class credit for their participation and a total of 80 participants (47 from Hawaii, 33 from another state) completed the study. Of the 47 participants from Hawaii, 45 were Asian and 2 were White. Of the 33 out of state students, 4 were Asian and 29 were White, however two were excluded from analyses because they indicated that they were visiting from other universities and expected to graduate from their home institutions, leaving 27 total White students from out of state. Although the goal was to recruit both White and Asian students from both locations, due to the greatly imbalanced numbers and difficulties in recruiting additional participants, all participants that were not White and from out of state nor Asian and from Hawaii were excluded from further analyses, leaving 72 total participants (29 male, 43 female). Participants ranged in age from 17-23.

Students who agreed to participate were directed to a Qualtrics survey where, after giving informed consent, they completed an online survey including the measures detailed

below. Respondents filled out the measures in a randomized order, but the demographics always came last.

Measures. In order to account for the many potential reasons why students from out of state are more likely to leave the university, I surveyed students about their various identities, sense of belonging and other individual differences known to affect academic outcomes. Below is a description of the measures broken down by the level of student's identity or the student's identity in the context the measure is designed to assess: the self, salient ingroup identity, or university identity (see also Figure 3). See Appendix 1 for all measures.

Self factors: general. I measured a number of general factors at the level of the self. Social Dominance Orientation was included because an individual's investment in the current dominance hierarchy (with White individuals at the top of the hierarchy) may affect the extent to which White individuals may experience identity threat when placed in the numerical minority. The remaining measures are all constructs that have been shown to relate to academic performance and persistence. Thus these measures will be used to control for relevant individual differences in analyses.

Social Dominance Orientation_(7s). Ho et al.'s scale (2015) measures personal preferences for social dominance and a hierarchal society. The 7s scale is a shorter version of the original scale and contains 8 questions instead of the former 16 question measure. Questions include: "Group equality should not be our primary goal" and "It is unjust to try to make groups equal" rated on a scale of 1 (*not true at all*) to 5 (*completely true*). Items were combined to form a composite score ($\alpha = .79$), where a higher score indicates greater endorsement of social dominance.

Locus of control. Three questions assessed how much individuals feel they are responsible for their own outcomes, as opposed to outside, uncontrollable factors determining their outcomes (Rotter, 1966). Participants rated their agreement with items such as “When I make plans, I am almost certain I can make them work” and “I have very little influence over the things that happen to me” on a 1 (*not at all true*) to 5 (*completely true*) response scale. Based on low reliability in this sample ($\alpha = .39$), this measure was not included in analyses.

BIG 5 personality inventory. Since the subscales of conscientiousness and openness to experience are most correlated with academic motivation and college achievement (Komarraju, Karau, & Schmeck, 2009), these subscales were used to examine individual personality differences. There are four questions in each subscale. Questions about conscientiousness include “I can be trusted, I am reliable and dependable” whereas openness to experience include items such as, “I am curious. I like to learn and experience new things.” Each item was rated on a 5-point scale ranging from 1 (*unlike me*) to 5 (*very like me*) (John & Srivastava, 1999). Items for each sub-scale were summed together to form a composite, where higher scores indicate greater conscientiousness ($\alpha = .78$) and openness to experience ($\alpha = .72$).

Grit. Duckworth and Quinn’s (2009) 8-item measure indicates persistence towards goals. Using the same one to five response scale as in the previous measure, participants rated how true each statement is for them, including items such as, “Setbacks don’t discourage me,” “I am a hard worker,” “I am diligent,” and “I don’t give up.” Based on low reliability in this sample ($\alpha = .50$), this measure was not included in analyses.

Self factors: perception of academic skills. These constructs are specifically related to perceptions of academic skills at the level of the self and have been shown to predict academic

performance and persistence. These measures were included to control for relevant individual differences in analyses.

Academic self-control. Patrick and Duckworth's scale (2013) was used to measure how students perceive their ability to focus on classwork. This 4-item measure uses a scale from 1 (Not at all true) to 5 (Completely true) to answer questions such as "I come to class prepared" and "I remember and follow directions". Items were combined to form a composite score ($\alpha = .79$), where higher scores indicate a higher perceived ability to maintain focus on academic tasks..

Perceived college skills. To measure how closely students identify with the skills needed for academic success in college, the College Self-Efficacy Inventory (Solberg O'Brien, Villareal, Kennel, & Davis, 1993) was included. This 20 item instrument included questions asking about students' perceived ability to do things such as "Take good class notes" "Make new friends at college"; and "Socialize with others you live with." Ratings are made on a 0-9 scale with 0 indicating no confidence and 9 indicating extreme confidence in one's ability to complete the task. Items were summed together to create a composite Self-Efficacy score ($\alpha = .92$), where higher scores indicate higher perceived confidence in carrying out skills typically required to succeed in the college environment.

Growth mindset. Three questions from the growth mindset measure (Hong, Chiu, Dweck, Lin, & Wan, 1999) were used to quantify if students have more of a growth or fixed mindset. Using a 6-point likert-scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*) participants rated how much they agreed with statements such as "You have a certain amount of intelligence, and you really can't do much to change it," "Your intelligence is something about you that you can't change very much," and "You can learn new things, but you can't really change your basic

intelligence.” Items were averaged together to create a composite score ($\alpha = .92$), where a higher score indicates a greater fixed mindset.

Test anxiety. This four-item scale measures perceived anxiety when taking a test, which can impact student academic performance (Spielberger, 1980). Participants rated their agreement with statements such as “During a test I often get so nervous I forget the answers that I know and as soon as an exam is over, I try to stop worrying about it, but I just can’t” on a 1 (*not at all true*) to 5 (*completely true*) response scale. Items were summed together to create a composite score ($\alpha = .84$), where a higher score indicates greater test anxiety.

Salient ingroup identity. These individual measures were used to conceptualize students’ varying levels of social identification with different social groups.

Level of identification. The Inclusion of the Ingroup in the Self Scale (Tropp & Wright, 2001) was used to measure the degree of connectedness to others within a prompted ingroup. The scale includes seven levels of two circles, one circle representing the self, the other representing the group. The initial two circles show no overlap, for each subsequent choice there is more overlap of the circles than the one before, with the final circles having a large percentage of overlap. This scale uses a visual representation to measure how closely participants identify with various groups (i.e., how much overlap do students see between their self and the indicated group). A larger amount of overlap represents a stronger identification with that group. The prompted groups included: undergraduate students at UH Manoa, undergraduate students on the mainland, European Americans, Asian Americans, Hawaii locals, and residents of their hometown.

Salient ingroup identification. Although the focus of this research is identification and belonging within the university environment, a strong sense of identity with a locally based

group may serve to increase persistence for out of state students. Using the Collective Self Esteem Scale (Luhtanen & Crocker, 1992) asking about group membership participants were given the following instructions: “We are all members of different social groups or social categories. Think about a specific group that you belong to here on Oahu in responding to the following statements. If no organized group comes to mind, think about your group of friends, your roommates or those that live on the same floor as you. In the box below, please indicate what type of group comes to mind (ex. friends, community organization, family, religious group, etc.)”

The Collective Self Esteem Scale measures the valence of self-perceptions of one’s group, as well as how one feels others view the group and contains four subscales to parse out how the participant feels about the group, how they believe others view their group, and how strongly they identify with the group. The membership subscale measures strength of association with the group with items such as “I am a worthy member of the social groups I belong to.” The private regard subscale measures personal private feelings towards the group with items such as “In general, I’m glad to be a member of the social groups I belong to.” The public regard subscale measures perceived public regard with items including “Overall, my social groups are considered good by others.” Last, the identity subscale measures how the group impacts the persons’ feelings about themselves, asking questions such as “The social groups I belong to are an important reflection of who I am.” This measure was not included in analysis as more than half of the participants did not follow the directions and left their chosen ingroup blank when filling out the measure. Thus, I do not know what ingroup the participant is filling out the scale in response to, which makes the current measure hard to interpret.

University identity. I measured students' sense of belonging at the University level, including their identification with UH Manoa, specifically, through the measures listed below.

University belonging. To measure university belonging the Psychological Sense of School Membership (Goodenow, 1993) was used. This measure is an 18-item scale that asks how much participants agree with statements such as, "I feel like a real part of this school," "People here notice when I am good at something," and "I can really be myself at this school." The purpose of these questions is to measure students' perceptions of belonging within the school environment. Three factors related to the college environment are measured: general belonging, sense of instructor support, and acceptance by classmates. Scores were calculated by summing all answers; higher scores indicating a stronger level of sense of belonging at the University ($\alpha = .89$).

University identification. To measure participants' feelings about being a member of the student body at UH Manoa the Collective Self Esteem Scale (Luhtanen & Crocker, 1992) used earlier to measure salient ingroup identification was modified. Instead of asking questions about one's "social group" this term was replaced with "UH Manoa". I calculated scores for each subscale, where higher scores indicate higher levels of identification with and regard for the university. Membership describes how valued the participant feels as a member of the university, private regard is how they personally feel about the university, public regard is how the participant perceives others feel about the university, and identity measures how strongly the participant associates the university as being a part of her or his own identity. Sub-scale reliabilities are as follows: membership ($\alpha = .81$), private regard ($\alpha = .87$), public regard ($\alpha = .86$), and identity ($\alpha = .81$).

Additional support systems. Both Tinto (1990) and Bean and Eaton (2001) include finding a mentor, the use of academic support services and having social support as predictors of college persistence. Brief self-report measures created by Yeager et al. (2015) were used to measure these factors. To assess mentoring, the student was given a description of what a mentor is, and asked to respond yes or no to if they felt they have met someone at the university who has taken an active role in their education. The measure of academic support services includes three items that assess how often the student has taken an active role in their education (e.g., “How often have you met with a professor or TA outside of class?”). These three academic support items were removed from analysis because of low reliability ($\alpha = .39$). Regarding social support, students were asked to rate the extent to which they agreed with three items such as, “Thinking back on the past year, I feel that I have made some close friends at UH Manoa” using a 1 (*strongly disagree*) to 7 (*strongly agree*) scale. Items were averaged together, and higher scores indicated greater perception of social support ($\alpha = .70$).

Persistence. The main dependent variable, planned persistence, was measured through a 5-point likert-scale self-report question about participants’ perceived likelihood of graduating from the institution with answers ranging from 1 (*likely*) to 5 (*unlikely*). In order to contextualize this information, those who indicated they are unlikely to persist or graduate were asked about any alternative plans, such as transferring institutions or finding full time employment. For ease of interpretation, the scale was reverse coded, so that higher scores indicated more likelihood of persistence.

Additional measures.

Demographics. In addition to collecting information using the above measures, I also collected demographic information in order to control for factors known to correlate with college

persistence such as current GPA, SES, parental education levels, commuter status, and frequency of participation in campus and community activities such as participation in sports, religious groups, social groups and academic clubs.

Data Management and Analysis

Survey data included numerical identifiers unattached to student names to maintain confidentiality. Downloaded data was stored on a password protected computer only accessible by me. For data analysis, t-tests were run to explore differences between students coming from out of state and those from Hawaii. Correlations and regressions were run for the total sample to illustrate which factors related to planned persistence through graduation for students and to examine what factors most strongly explained planned persistence.

Results

Mean group differences in persistence and key predictors. First, I examined mean differences between students from Hawaii and those from out of state on my main dependent measure (planned persistence) and other key predictor variables (university belonging, and similarity with various groups including mainland locals, mainland students, Asian Americans, European Americans, and UH Manoa Students) using independent sample t-tests. As predicted, Asian students from Hawaii were significantly more likely to plan on graduating from the university ($M = 3.51$, $SD = 1.01$) than those who were White and from out of state ($M = 2.36$, $SD = 1.59$), $t(71) = 3.43$, $p = .001$, $d = .86$ With regard to measures of university belonging and identification, however, means were similar between those from Hawaii and out of state. Specifically, students from out of state ($M = 64.48$, $SD = 2.15$) and from Hawaii ($M = 63.13$, $SD = 1.43$) indicated similar levels of university belonging as measured by the Psychological Sense

of School Membership scale, $t(71) = -.54, p = .59, d = -0.13$. Similarly, out of state participants ($M = 3.96, SD = 1.77$) and Hawaii participants ($M = 3.96, SD = 1.62$) indicated a similar level of identification with UH Manoa students as measured by the Ingroup in the Self scale, $t(71) = -0.22, p = .91, d = -0.03$.

Using the Inclusion of the Ingroup in the Self scale to measure feelings of similarity between the participant and various social groups, those identifying as Asian reported stronger similarities with Asian Americans ($M = 5.42, SD = 1.57$) compared to the similarity of those identifying as White felt with European Americans ($M = 3.68, SD = 1.81$), $t(71) = 4.48, p < .001, d = 1.03$. Additionally, out of state students ($M = 3.82, SD = 2.25$) felt less similarity with Hawaii Locals compared to Hawaii students ($M = 4.67, SD = 1.87$), though this difference failed to reach significance $t(71) = -1.74, p = .087, d = .41$. However, out of state students ($M = 4.64, SD = 1.99$) felt significantly more similarity with mainland students compared to Hawaii students ($M = 2.87, SD = 1.83$), $t(71) = 3.904, p < .001, d = .92$.

Correlations between self factors and planned persistence. I first examined general self factors (i.e., conscientiousness, openness to experience, and SDO) to examine whether they were correlated with planned persistence. None of these factors were related to planned persistence (see Table 1). Next, I examined whether measures at the level of the self that are known to predict academic success (i.e., academic self-control, perceived college skills, growth mindset, test anxiety) were related to planned persistence. None were related to planned persistence, except perceived college skills. Perceived college skills was significantly correlated with intent to graduate $r(73) = .27, p = .021$. Thus, an increase in perceived college skills was related to greater intent to persist to graduation (see Table 1).

Correlations between identity, belonging, and planned persistence. Correlations were run to test the hypothesis that identity and belonging scales were highly correlated with planned persistence across both groups. Some aspects of the identity measures at Level 2 (salient ingroup identification) were related to planned persistence through graduation (see Table 1). Specifically, identification with Asian Americans was significantly correlated $r(73) = .41, p = .031$ with planned persistence, meaning that the stronger a student identified with Asian Americans (regardless of where they were from or their own racial/ethnic background) the more likely the student planned to persist until graduation. Identification with Hawaii Locals was also correlated with planned persistence across the entire sample, $r(73) = .39, p = .001$, however this effect was not consistent across those from Hawaii and those from out of state. When breaking the sample into sub-groups this effect is much stronger for students from out of state, $r(28) = .50, p = .014$. Thus, out of state students that more strongly identify with Hawaii Locals are more likely to intend to persist through graduation, but the correlation, while still positive, was not significant for students from Hawaii, $r(45) = .18, p = .20$. Identification with “Mainland students” was negatively correlated with planned persistence, $r(73) = -.35, p = .002$, meaning that the stronger the identification a student has with mainland students the less likely it is that they plan to persist until graduation. This effect was also considerably stronger for out of state students, $r(28) = -.37, p = .04$, than students from Hawaii, $r(45) = -.024, p = .88$. Notably, no other salient social group identifications (identification with European Americans or identification with people from your hometown) were related to planned persistence (see Table 1).

Next, I examined correlations of variables at Level 3 (university identification and belonging) with planned persistence. University belonging was significantly correlated with intent to persist through graduation for the whole sample, $r(73) = .27, p = .021$. Specifically,

increased levels of university belonging are related to increased intent to persist through graduation. Additionally, identification with UHM students was also significantly correlated with intent to persist through graduation for the whole sample, $r(73) = .26, p = .031$, but this effect was stronger for out of state students, $r(28) = .37, p = .05$, than for Hawaii students $r(45) = .24, p = .11$. Students' Collective Self Esteem as a UH Manoa student was also significantly related to persistence for some sub-scales, but not others, and interestingly varied by whether students were from out of state or from Hawaii. Private collective regard was only significantly correlated with persistence for the participants in the Asian and from Hawaii group, $r(45) = .36, p = .014$, meaning that the more they personally view UH Manoa positively the more they plan to persist through graduation. However, this correlation for out of state students was not reliable. Out of state students' persistence was instead significantly correlated with public collective regard, or what they believe others think of the university, $r(28) = .47, p = .007$. Identity was also significantly related to persistence for both the combined group $r(73) = .27, p = .025$ and the out of state group, $r(28) = .43, p = .024$, but not students from Hawaii. The measures of total Collective Self Esteem as UH Manoa student, use of support services, and active on campus were all not related to persistence (see Table 1). These group differences in what predicts planned persistence illustrate that at the same university different populations may have different reasons for not planning to persist.

Multiple regression. Although my sample size was not big enough to include all of the potential factors influencing student persistence, as originally planned, the strongest factors at each level (self factors, salient ingroup identification, and university identification) were included in a multiple regression to see which factors independently contributed to planned persistence through graduation. I regressed planned persistence on combined race/location

(dummy-coded, with 1 = out of state/White), perceived college skills, similarity with Hawaii locals, and university belonging (see Table 2). The overall model was significant, $F(4, 68) = 8.78, p < .001, R^2 = .341, A_{adjusted} = .302$). Perceived college skills and university belonging did not independently predict persistence when controlling for the influence of other variables ($\beta = .003, p = .98$); $\beta = .21, p = .09$), but the two other variables remained significant independent predictors: similarity with Hawaii locals ($\beta = .25, p = .031$), and race/location ($\beta = -.39, p < .001$).

Discussion

These results suggest that a sense of belonging to a “Hawaii local” social identity impacted planned persistence for both students from Hawaii and from out of state. While a relationship between belonging and persistence was generally expected, some of the specific measures that predicted persistence were a surprise. Specifically, the differences in the Collective Self Esteem scale for White students compared to Asian students were unexpected. Asian students seem to be influenced more by what they think of the university as compared to White students who seem to be influenced by what others think of the university. However, this may be because growing up here the Asian students already had a sense of what others thought about the university before becoming a student but this question may be more salient to the newly arriving White students.

When looking at different salient ingroup identifications I predicted that generally these measures would be significantly correlated with persistence for White out of state students. Although I predicted that the strongest correlations would be between university belonging and persistence, I included additional measures of feelings of similarity with various groups to capture other potential identity anchors. Although not entirely unexpected, the strong correlation

with similarity to Hawaii Locals was surprising. It was also interesting how persistence was negatively correlated with similarity to mainland students. While zero-order correlations showed that university level belonging was related to persistence, when combined in a regression with other factors, including salient ingroup identification with Hawaii locals and perceived college skills, university belonging was not an independent predictor of persistence for students overall. Identification with Hawaii locals, however, remained an independent predictor.

Looking at this through Brewer's theory of optimal distinctiveness (1991), strong group identities require both a sense of belonging and inclusiveness but also a sense of differentiation from other groups. At this university, the geographical isolation and structure of the state university system may result in a lack of easily identifiable differentiation. One piece of evidence for this is that the school has no specific rival team. This is likely due to a combination of factors, including all the public universities in Hawaii holding the same "University of Hawaii" name, with differentiation only through the addition of the university location. With the University of Hawaii at Manoa being the flagship school of the UH system, the closest benchmark school is over 2,000 miles away on the continent. Additionally, optimal distinctiveness can only occur when there are well defined, moderately selective, membership groups. Leonardelli, Pickett, and Brewer (2010) additionally refined Optimal Distinctiveness Theory by arguing that relative group size is important. With so many students at the same institution, a lack of a comparison group, and with White students' lack of experience with identifying as a minority, a lack of distinctiveness may be why students don't have an opportunity to form a sense of identity and belonging through their university affiliation, and subsequently planned persistence is more based on their feelings of similarity with the more selective group of "Hawaii Locals".

Study 2

In the second study, I used a qualitative approach to examine in depth factors related to the University experience in order to understand student persistence. I have chosen a mixed methods approach to allow for triangulation of the findings, and to add context to survey data (Creswell & Clark, 2007).

Method

Recruitment. Participating students were recruited using word of mouth and class announcements. A wide variety of majors were represented. Most of the participants met with me because of fellow graduate students putting me in touch with students in their class, or because they were very social students who were interested in discussing their experience. Planned recruitment categories were 3-5 students who were considering or planning on transferring and 3-5 students that were happy with their decision to attend the university. Initially transfer students were excluded from the study, but I ended up scheduling two interviews with students I didn't realize were transfer students. Their experiences provided a different window into how they viewed the university. As comparisons to past experiences and expectations became a major theme, experiences from transfer students helped to illustrate differences between expectations compared to other universities and those compared to high school. After this change, the qualification criteria included being White, from out of state, within the typical college ages of 18-26, and currently a full-time student at The University of Hawaii at Manoa.

Participants. A total of nine participants consented to be recorded and were then interviewed. The interviewees consisted of three males, and six females, ranging in age from 18 to 24. Almost all students came from the West Coast of the United States. California had the highest representation with 5 students, followed by 3 students from Washington state, and 1

student from Indiana. Most students were psychology ($n = 3$) or pre-psychology ($n = 3$) other majors represented were kinesiology ($n = 1$) and sociology ($n = 2$). The participants could loosely be grouped into three different categories: three who were happy at the university; three who would prefer to transfer, but due to circumstances plan to persist until graduation; and three that were either considering, or were in the process of, transferring schools. Each participant had the choice of receiving a \$5 gift card for coffee, or a \$10 gift card to the campus bookstore as compensation.

Procedure. All but one of the participants met with me one at a time in a small, private room. The other participant was at his parents' house for the summer, so we used Skype instead of having a face-to-face meeting. All participants were recorded using both SuperNote on an Iphone 5s and a digital voice recorder to avoid recording issues or accidental deletion. To maintain confidentiality no names were mentioned while recording and all transcriptions and notes are using pseudonyms chosen by me. All questions were open ended and designed to elicit a variety of potential answers while hoping to capture the most salient thing that comes to mind when asked about aspects of choosing and attending the university. Interview questions began with "why did you choose this college," asked about what the students liked about attending the university and then followed up with what they disliked. Additional questions asked about expectations, what advice students wish they received, and what their thoughts were on campus diversity. The interview ended by asking if there was any additional information I should know.

Data Management and Analysis

In total, two research assistants and I transcribed over 240 minutes of audio. On average, each recording was just under 27 minutes. The shortest was the first interview at 14 minutes and 42 seconds; however, as part of an assignment that participant was interviewed a second time for

just over 25 minutes. The longest interview was just under 41 minutes. Transcription of these interviews resulted in 81 pages of transcripts with an average of 9 single spaced pages per interview.

Interview questions were created based on literature regarding typical markers that influence persistence, survey questions from students that have left the university, and survey answers from incoming freshman about why they chose this specific college. The transcript set from the first participant was read multiple times and initially coded for the following a priori open categories, Idealized Hawaii/unmet expectations, Mainland to Hawaii acculturation, UHM successes, and UHM areas of improvement. Next, during the readings and process of coding concepts, open coding subheadings were created including comparisons with the mainland, praise of diversity but difficulties forming friends, and the theme of feeling disconnected from fellow mainland students. Microsoft word was used to highlight and color code each theme and then these themes were analyzed for further subheadings. Although codes were made for areas of improvement, they were not included in the final analysis because the themes were consistent across all groups and none were mentioned as reasons for wanting to leave.

When recording and re-listening to the interviews the same themes kept repeating and there appears to be a saturation point after reading through any combination of five or more interviews. Due to time constraints I was the only one coding transcripts, but I plan to use these transcripts to train research assistants on how to code qualitative research and any inconsistencies will be discussed and changed in subsequent iterations of this research. For this paper, themes were chosen by me along with illustrative quotes using pseudonyms instead of student names.

Results

Idealized Hawaii. Everyone had the same answer to why UH Manoa: Location.

However, nobody knew much about the university specifically, just that it happened to be in a location that they were interested in living. Corrine was in her second year at UHM and waiting to hear back from schools in her home state of Washington at the time of this interview.

Interviewer: “So, why did you choose to come to the University of Hawaii at Manoa?”

Corrine: “Mainly because it’s in Hawaii (laughter) and I thought it would be such a cool place to study, like you can choose anywhere in the world, it’s the time in your life where you can go and do anything, basically. I mean I’m going to get the same degree from anywhere, so I thought why not go to Hawaii.”

Very few students had even visited the university before starting classes while others, like Leah, had very little idea of what it would be like to live in Hawaii:

Interviewer: “Had you ever been to Hawaii before you came here?”

Leah: “I came once when I was like 12...Yeah but we were only in Oahu for a layover, we went to Pearl Harbor and that was it and we went to Kauai...So yeah this is the only time that I’ve been on the island for more than a day.”

Students appear to start out being attracted to the location, and sadly even after attending school for some time seem to lack any kind of loyalty or connection to the institution. When recruiting for this study, Sarah told me that she was an example of someone who loves it here. At the time I assumed she meant loved it here at the University, but it is now clear that she meant Hawaii.

When asked what she liked about the university, Sara responded:

“It’s in Hawaii, and, umm, I don’t know...It’s nice in Hawaii, but, honestly, if there was another school over here in Hawaii, I wouldn’t mind changing.”

What seems to differentiate students from out of state that plan on staying here compared to those that are considering leaving is if they either moved with someone or had a friend already here. Sarah has her boyfriend, who seems to be part of the reason why she moved here.

Sarah: “I met my boyfriend the last time I was in Hawaii, so he may have been a liiittle (drawn out for emphasis) bit of an influence on me coming here, yeah, maybe just a little (smile).”

The other two people that are happy here are Chris, who moved here with a friend that he is now living with, and Laura who came here with her husband. Joanna also moved here with her husband, but she made it clear that she is only here because he is in the military.

Along with idealizing Hawaii, first time college students kept unfavorably comparing the university with experiences that their friends were having back home, with complaints ranging from the lack of school spirit, that the quarter system in California is better, and that back home they don’t require four semesters of a language or even require you to go to class. Corrine, and multiple other students lamented the lack of college house parties and was looking forward to experiencing them next semester when she transfers to a school closer to home:

“Just seeing my friends at other places, and seeing how much fun they are having at house parties. I mean, that looks like so much fun! I mean here we don’t have house parties. Number 1, it’s too hot. Like I went into one ONE time, and I was like noooo, I’m outta here. So (parties) would be super fun, I think the party scene will be super awesome at (her new school). And then sporting events, like I said before it’s always been such a big part of my life, and at other schools, but at UH it isn’t.”

Interestingly, the only students without complaints about the university were either males or transfer students. In fact, Chris, a transfer student from California finds UHM to be a much more productive learning environment compared to his old community college:

“It feels a lot more like a college here which makes me actually do my work. It doesn’t feel like I’m just in my own home cause there I was either at school or at home they never wanted to work. And so here it’s like I’m away from home I’m in school like I have breaks in between I’m still on campus I’m like in a school mode. It just feels like I’m actually ready to work.”

Mainland to Hawaii acculturation. When I started this research I expected some negative opinions about the racial makeup of Honolulu since this is likely the first time White students are experiencing being in the racial minority. However, the three men in the sample were the only ones to mention feeling like they were in the minority. Chris had the stronger comment, and what I think is a unique interpretation of the situation, which made for a somewhat awkward conversation.

Chris: “I mean I instantly feel like I became the minority here (small laugh) from moving like in Irvine.” Well Irvine is a very like heavily Asian populated area but it’s still I mean like there were in southern California in general there were like a lot of White people so I you know you don’t feel like not necessarily out of place but you just don’t feel like the minority and then here you move and it’s just either like it’s very heavily Asian here too”

Interviewer: “mmh hmm”

Chris: “which I mean my roommate’s Asian so it’s not that bad. But uh that and like I’m not gonna lie...when I walk around the crazy homeless people around are always White so now I just have this sense or this feeling that when I walk around people automatically

associate me with like crazy because I mean I see it too I'm not blind to like "oh it's the White people are crazy" like I'm the first one to say it I'm like I know we're all crazy here."

Interviewer: "hum"

Chris : "So I feel like if you live here past college and you're either going to be like the top somewhere or like you know business or you're gonna be crazy. There's no like in between and so I'm afraid that like people automatically associate me with just these crazy homeless people running around the streets yelling at themselves."

Interviewer: "Interesting. Have you had any experiences where people assumed things about you that weren't necessarily true?"

Chris: "Not that I know of"

Interviewer: "Okay"

Chris: "Yeah. I just I just have a feeling that especially a lot of the local population, that well they probably think like I'm one of the people that took over their island but I'm only here for a couple years for school."

Looking back, I missed the opportunity to probe Chris on what interactions or conversations had lead him to acquire this view. Although everyone was asked about their thoughts on diversity, most students brought up the topic before the question was asked. For example, this is Steve's response to my first question asking about what he likes about attending school here:

"Um, I—like—it's p—it's a positive and a negative I guess, but um, the diversity. Like it's really cool to see like how like—I guess in my life this is the first time I've been a minority—so, it was just interesting to be like, "okay, I'm—whatever I'm used to is not

what it's like here so I just have to get used to what's going on, and really learn about it. It's been interesting taking it in step by step."

Steve was not unique in seeing the diversity as both something positive and negative. Most students mentioned that although they were interested in learning about new cultures, having cultural differences made it more difficult to form friendships.

Corrine: "It's so diverse (here), and...it's so cool! I mean back home, it's seriously White people and Mexicans. And, I love em, they're great, but I've never experienced something like UH and it's just totally opened my eyes. I've just never even thought about other cultures really before, and I think it's so cool that I'm like totally different than all of these people....I mean my two best friends, like, one is from Panama, and one is from Saipan, so it's just, my friend group is so diverse, which is so cool, but it's also hard. Because they don't have a lot in common with you, you know...I mean basically they just don't know your background, I mean when you meet someone, and they have the same traditions, you kind of already have so much in common, so when you meet someone and you don't have anything in common, it's kind of hard to relate...But you figure it out, eventually, it's just different. It's just totally different. You have to overcome some racial boundaries or whatever, but I think it's really cool in the end."

When brainstorming ideas for getting students to feel more of a sense of belonging at the university I started wondering if mainland students would benefit from meeting with other mainland students. However, the most surprising theme to emerge from the transcripts was that most of the mainland students mentioned that they do not get along with other mainland students, or find that the mainland student population isn't as diverse as they expected.

Leah: “I’m having like a surprisingly hard time clicking with people from the mainland, which is interesting.”

Interviewer: “Can you tell me a bit more about that?”

Leah: “I feel like...people from the mainland aren’t very direct with their, with their thoughts about things. So like, I guess you could say they’re a little bit more like, fake, I guess for like some people...I’ve met people from Pennsylvania, New York, Arizona, Washington, Oregon. They’re all kind of like, I don’t want to say that they’re...I mean they’re not the same people, but they all kind of have the same tendencies.”

Corrine also felt a lack of similarity with other students from her state:

“I met a lot of people from Western Washington, and they are totally different places, I worked harvest this summer, before freshman year here, so I was literally covered in dirt most of the time, and people from the west side just don’t really understand that. So, I met a lot of people from Washington, but not a lot from eastern Washington, so there’s a connection, but really they don’t have any idea, really we don’t have anything in common. So it’s like, you reach for it, like “Oh, you’re from Washington?!?” Where? They say Edmonds or something and I’m like (sigh) oh, okay, like we really don’t have any connection. It’s the same as meeting people from Oregon, it’s like we are so close, yet so far away.”

The students I spoke with seem to be both reaching out to people from other cultures and trying to embrace their experience here, but also struggling to find a connection even among others in the same situation. Thankfully, students have found some of the on-campus services helpful.

What works at UHM. Most participants had only positive things to say about campus resources. Three participants mentioned finding help at the counseling center:

Laura: “Well, the first few weeks here were, um, really rough. I was crying all the time--- homesick. Well, so my roommate mentioned the counseling center...I mean it’s a great resource; I just actually was there earlier today. It helps a lot.”

Other things that were mentioned as helpful resources were the recreation facilities, library, shuttle bus, and computer help at the book store:

Corrine: “My computer broke, I went to the bookstore, they fixed it for me yeah, I didn’t know they could do that until I ran into the problem, and I really needed someone, so that’s helpful.”

Additionally, four participants mentioned how much they like the instructors here. Leah is a freshman and is really enjoying her classes:

“I like, like my professor, like so far like, they’re all like super nice, like even if they’re not like the best at teaching – like they’re still just a nice person, so I really like that.”

Chris has similar views: “The teachers here just so cool I mean they’ve never made me bring my own scantron they’re so laid back it’s just I don’t know I just feel better.”

There are some positive things about the University, but again there were no differences in what was mentioned by the students that were considering leaving compared to the ones that were happy and planning on graduating from UHM. In all categories, similar issues were also mentioned.

Discussion

Looking at differences between those students that were happy at the university and those that either felt like they were stuck here or were considering/planning on transferring, one

primary theme was consistent. Specifically, having a friend here when arriving was mentioned by all three students that had not considered transferring. Two of these students made the move with someone, and the other student had a romantic interest who lived near the University. Although further research is needed, having someone here seems to promote persistence.

I expected to see differences between those students planning on leaving the university, compared to those who planned to remain, in feelings of identity threat. Specifically, I expected White, out of state students would experience identity threat caused by a shift from being in the racial majority into the numeric minority. However, this identity shift was not mentioned by anyone who was actively considering leaving the institution. Instead, this topic was associated with gender, being mentioned if and only if the participant was Male. This gender difference can be understood more fully through the Subordinate Male Target Hypothesis from Social Dominance Theory (Sidaniou & Pratto, 1999). Cross-culturally males are consistently in a higher position in society compared to females. Thus males occupy the highest position in the social hierarchy (being both male and White), and they would be the group most likely to feel a change in social status when switching from majority to minority status. Additionally, females have already lived through the experience of having some stigma and identity-based threats because of their gender. Having experienced identity threats in the past, females are more likely to have built up defense mechanisms against this threat (Purdie-Vaughns & Eibach, 2008).

Additionally, Purdie-Vaughns and Eibach (2008) have shown how dual minority status, like the experience of minority females, serves as a buffer to identity threat since challenges to threat are directed more to those with one prototypical minority marker as opposed to the more invisible minority females. Interestingly, the males I interviewed were all planning on continuing at the University, so for them the minority status and associated discomfort were not

enough to trigger a change in planned persistence, or at least one that outweighed the additional education that would be required after transferring. One could argue that by not explicitly mentioning the transition from being an ethnic majority member to being in the minority this difference wasn't fully explored at least with the female participants. However, I purposely chose to avoid directly asking about the change in status in order to focus on the topics that were most salient to the participants, instead of focusing on my own hypotheses.

Of everything discussed during these interviews, the main difference between those that plan on staying at the university and those that are planning on leaving was if there was a friend or significant other either already here, or that was also moving to Hawaii. This points to feelings of belongingness as described by Baumeister and Leary (1995) as being an important factor in persistence for out of state students. Although not all students can arrive with a friend, the university may want to pursue ways to help students initiate close friendships shortly after, or even before arrival.

General Discussion

Both the interview data and survey data point to feelings of belonging as a predictor of planned persistence through graduation, but this was only the case for certain measures of belonging. Specifically, belonging at the level of salient social identities (Study 1) or close friends/relationships (Study2) emerged as most important. This may be due to the theme from the interviews that location, and not the institution, was the reason why students choose this university. Therefore, the people at the location: Hawaii locals, are a more important identity anchor than the university itself. As predicted, significant differences in planned persistence until graduation were seen between the students from out of state and students from Hawaii.

Additionally, the factors related to planned persistence differed across students from out of state and students from Hawaii.

For White, out of state students the correlations with persistence that reached significance were measures of similarity with “Hawaii locals” and “UHM Students” along with “Public collective regard” and “Identity” measuring perceptions of others positive opinions about the university and how strongly the student’s identity was tied to UHM. This group also showed a significant negative correlation between persistence and similarity to mainland students, such that the more similarity they felt to mainland students, the less likely they were to persist. The only expected correlation that did not reach significance for White, out of state students was the measure for University belonging, however the measure did trend towards significance.

The data for White, out of state students seem to indicate that those that feel less association with mainland students and more association with the local university and population are more likely to indicate that they plan on persisting through graduation. Looking at the acculturation literature, these students are likely striving for either integration or assimilation. As described by Berry (1997) this feeling of mixing cultures can result in the feelings of being in a melting pot or pressure cooker depending on your perspective. It may be that the students who feel more of a sense of belonging with the group, as predicted based on Baumeister, & Leary’s (1995) research are able to better integrate or assimilate into the group and are then more likely to want to continue at the university.

For the Asian students from Hawaii, internal perceptions seem to matter more than connections with others. University belonging was related to persistence for these students, but the only other measures related to persistence were private collective regard and perceived college skills. These correlations suggest these students worry about their success and how they

feel about the university in informing whether they should stay. Although the focus of this study was examining the mainland persistence problem, I suspect that there are also potential ways to help Hawaii Asian students increase planned persistence.

Interestingly academic and internalized measures traditionally thought of as driving persistence showed a surprising lack of association with intention to persist. Although academically challenged college students are at higher risk for dropping out (Astin, 1977), the population of interest in this research does not appear to have a deficit in academic skills. High school GPA's for all participants were relatively high, with only one participant listing a GPA below 3.2. Additionally, any mention of academics in the interviews were not about academic struggles. Students did find that classes required more studying than in High School or Community College, but none mentioned being concerned with grades or being unable to do the work required. With such a high rate of attrition in a group not experiencing academic difficulties, it follows that something besides academics is likely influencing persistence. The interviews suggest that location is the reason why students come here, while academics are secondary.

In the interviews, all the students that planned or were thinking about leaving the university mentioned an intention to transfer to colleges closer to home. In the survey, those students from out of state that indicated they were unlikely, or somewhat unlikely to graduate from UH Manoa, all planned to transfer, but only one planned to transfer to another school in Hawaii. The students from Hawaii that show a lack of planned persistence appear more likely to be at risk of dropping out of college all together. Since one of the main correlates with persistence in the Asian population from Hawaii is perceived college skills, these students may associate their lack of fit not with the location and lack of belonging, but may instead assume

that they do not belong in college, similar to the phenomenon seen with lowered persistence and graduation rates for Black, Latino, and first generation students (Tinto, 2006).

As many notable social psychologists have stressed, context matters. Because of the unique social climate, racial demographics, and geographic isolation of Hawaii, a certain type of student is more likely to choose this location to attend college. White students with the means to fly across the ocean to attend college would typically have the resources and educational background associated with educational success. However, they may not have, nor may not have expected to need, a cross cultural understanding similar to the experience one expects when studying in a foreign country. In my interviews, students seem to choose to attend UH Manoa for the chance to live in the idealized Hawaii seen in movies, or based on idealized beliefs formed from a past family vacation. The University itself, and the associated academics, were a secondary consideration, if a consideration at all.

From this perspective, Hawaii as a location seems to serve as an identity anchor in place of the typical university identity association seen on most college campuses. Indicators of this in the quantitative data are the significant correlations between planned persistence and similarity with Hawaii locals. Additionally, the regression indicates that the salient social identity of Hawaii locals was a stronger independent predictor of planned persistence than university belonging (which did not emerge as a reliable independent predictor when controlling for other factors). Additionally, the negative correlation with mainland students from the Ingroup in the Self scale for the White out of state students could point towards some type of acculturation process where students moving to Hawaii may need to integrate both their new location based Hawaii identity and their old mainland identity. A classic definition of acculturation comes from Redfield, Linton, and Herskovits (1936): “acculturation comprehends those phenomena which

result when groups of individuals having different cultures come into continuous first-hand contact with subsequent changes in the original culture patterns of either or both groups” (p. 149). Differing cultures was a theme throughout participant interviews. Specifically, the expressed desire to learn about new cultures while also finding it difficult to make connections with fellow out of state students highlighted in my interviews points to a potential acculturation process happening when students come to Hawaii for college. While more research is needed to understand both this process and potential implications, this research points to opportunities for improving persistence not only for students here in Hawaii, but for other students who lack a sense of belonging with their college peers and/or institution.

Limitations

The greatest limitations to this research were the small sample size and lack of ability to discern causation through survey data. Originally my plans included recruitment goals for four groups, but the students that were Asian from out of state Asian and White from Hawaii were removed based on the extremely low sample sizes of 2 and 4, respectively. This issue results in the inability to distinguish if the differences in correlations across groups were related to location, race, or a combination of both factors. Further compounding these issues is the high percentage of psychology students in both the survey and interview sample due to convenience sampling by recruiting students from undergraduate lower level psychology classes.

Additionally, the White out of state sample was lower than the 30 student minimum I planned to recruit. Because of these sample size issues, I was unable to run the larger multiple regression models I had originally planned on using. This issue was exacerbated by not being able to use some data in the final analysis because certain measures such as race, Hawaii vs. out of state origination, and gender were mistakenly left out of the original survey design. Although

this wasn't a problem for race or gender, for all participants a home location wasn't explicitly measured. Instead, two variables available in the pre-screen data—birthplace and time in Hawaii—were used to infer home location (i.e., whether the students were from Hawaii or from out of state). Participants for the qualitative portion were also difficult to recruit, especially those in their first year. It would have been helpful to find more students from places other than the west coast. I also tried to recruit former students that had transferred to other institutions as a way of learning if the new school better matched expectations. However, although I was provided with contact info for such students I was unable to recruit these participants. Looking back at my research plan I now realize that recruiting an Asian sample would help to further inform the reasoning for the differences in qualitative results seen between the students from out of state and Hawaii.

Some research (Gloria & Ho, 2003) has shown that there are differences in persistence correlations amongst those of Chinese, Japanese and Korean ancestry. By not recording specific ethnic identities, I am unable to analyze potential ethnic differences. An additional measure Gloria & Ho found to correlate significantly with persistence is level of parental support but this was also not included in the survey questions.

Future Directions

Future research is needed to identify what part of local identity is salient to out of state students when asking the question regarding their strength of identification with this group. Additionally, the idea of out of state students going through a process of acculturation should be further investigated. More broadly, to help with persistence to graduation, the higher education community should consider what measures besides academic orientations and identities may be influencing outcomes in student persistence at specific institutions. Focusing on only individual-

level predictors (i.e., factors at the level of the self) may be unduly limiting the understanding of the variety of potential triggers leading to a student's decision to either persist or leave a university. Considerations should also be taken to identify and research group differences in what influences planned persistence. Hopefully at UH Manoa these measures can be used to create a tailored intervention to help all groups of students increase persistence levels.

Conclusion

Students choose to leave or persist at an institution for a variety of different reasons, not all of which are related to academics. By taking a more in depth look at environmental factors influencing persistence, colleges may discover that there are simple, cost effective ways of changing student perceptions and opinions that lead to higher rates of student retention and persistence. Although this study examines a unique and specific student population, it is likely that similar scenarios are playing out at other institutions. By moving beyond the idea that persistence is based on skills a student brings to college, and instead identifying the role that belonging and other non-cognitive psychological factors play in student persistence, schools will hopefully be able to further improve retention and persistence for all college students.

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Table 1.

Correlations with planned persistence through to graduation based on ecological levels

Measure	Combined (N = 73)	Out of State (White; n = 28)	Hawaii (Asian; n = 45)
Level 3: University Identification			
University Belonging	.271*	.354	.314*
Similarity with UHM students	.261*	.372*	.239
Use of Support Services	-.024	.045	.084
Active on Campus	-.077	-.041	.182
Membership Esteem ^a	.083	.262	.245
Private Collective Regard ^a	.172	.140	.361*
Public Collective Regard ^a	.076	.472*	.049
Identity ^a	.265*	.434*	.206
Level 2: Salient Ingroup Identification			
Similarity with mainland students	-.353**	-.368*	-.024
Similarity with Asian Americans	.406*	.298	.180
Similarity with European Americans	-.140	.101	-.016
Similarity with Hawaii Locals	.385**	.495*	.183
Similarity with Hometown	-.042	-.195	.145
Level 1: Self Factors			
Big 5: Conscientiousness	.129	-.303	.234
Big 5: Openness	.095	-.384	.159
SDO	-.166	-.303	.102
Academic Self-Control	-.059	-.308	.234
Perceived College Skills	.271*	.354	.308*
Growth Mindset	-.158	-.223	.015
Test Anxiety	.132	-.030	.204

Note. * = $p < .05$, ** = $p < .01$

^a Subscale of the Collective Self esteem scale

Table 2.

Regression of top persistence correlations

Variable	<i>B</i>	<i>SE B</i>	β
Race/location	-1.14	0.91	-.39**
Perceived college skills	0.00	-0.01	.003
Similarity with "Hawaii Locals"	0.17	.08	.25*
University belonging	0.03	.02	.21

Note. Overall model: $R^2 = .34$, $p < .001$; * = $p < .05$, ** = $p < .001$

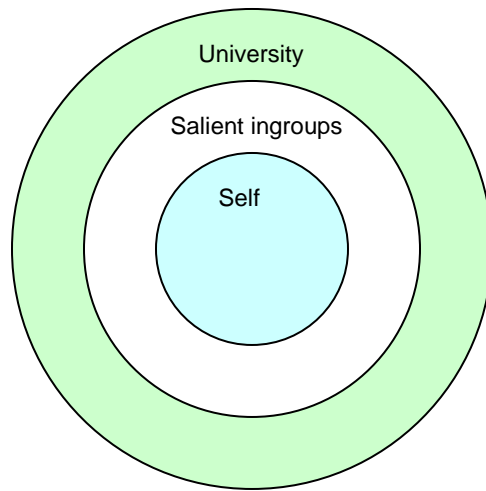


Figure 1. Ecological Systems model (Bronfenbrenner, 1992), a framework for understanding nested college student identities.

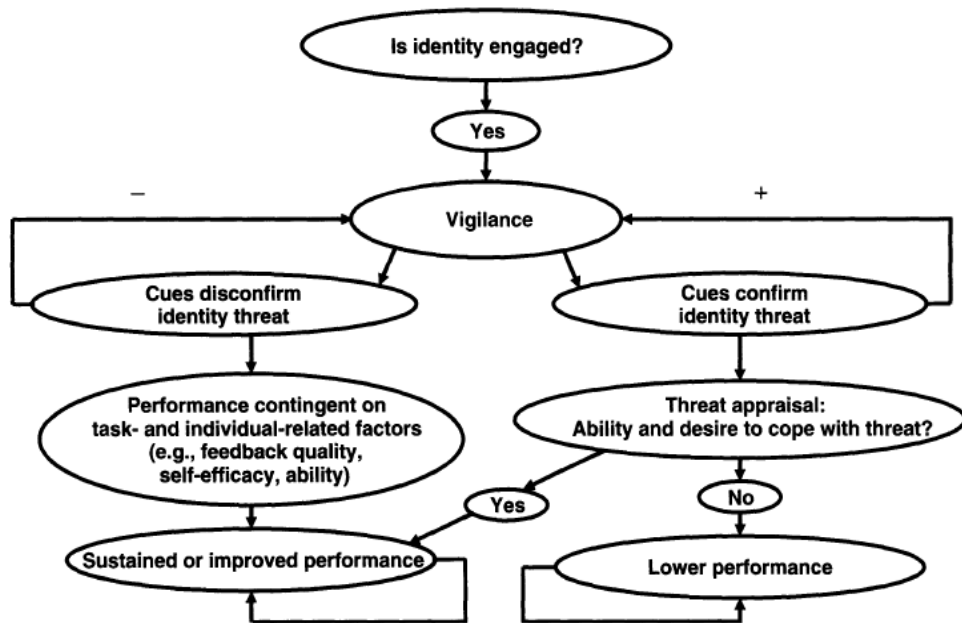


Figure 2. Cohen and Garcia (2008) Identity engagement model to explain identity threat

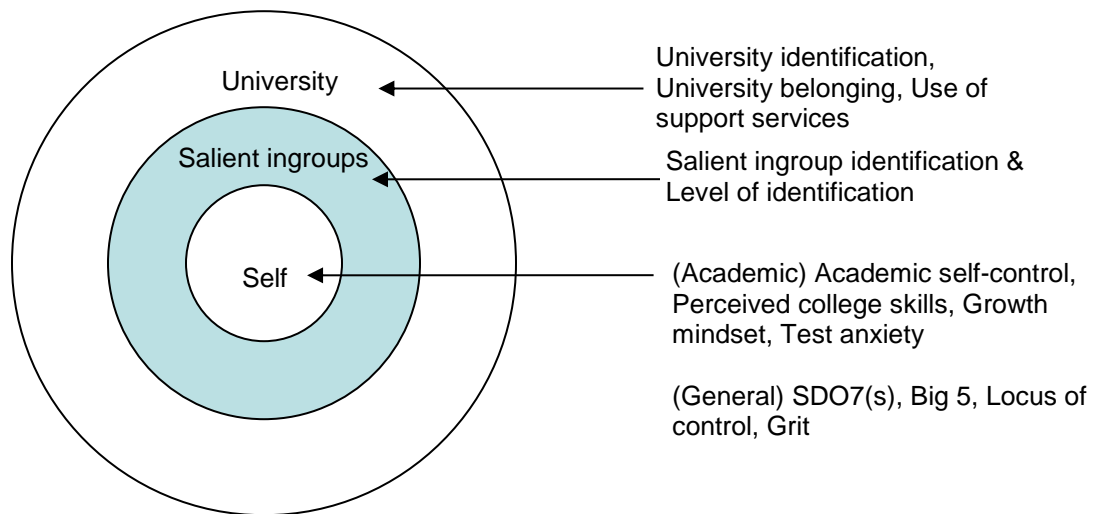


Figure 3. Levels of identification and proposed measures. Adapted from:
Bronfenbrenner (1992)

Appendix 1: Study 1 Measures and Associated Identity Levels

List of Measures

Self: general

- A. SDO_{7(s)} Scale
- B. Locus of Control (Rotter, 1989)
- C. Big Five Personality Inventory: Contentiousness and Openness to experience subscales (John & Srivastava, 1999)
- D. Grit (Duckworth & Quinn, 2009)

Self: perception of academic skills

- E. Academic Self-control (Patrick & Duckworth, 2013)
- F. Perceived College Skills (Solberg, et al 1993)
- G. Growth Mindset of Intelligence (Hong, et al., 1999)
- H. Test Anxiety (Selected from Spielberger, 1980)

Salient Ingroups

- I. Inclusion of the Ingroup in the Self Scale (Tropp & Wright 2001)
- J. Collective Ingroup Self Esteem (Luhtanen & Crocker, 1992)

University

- K. Psychological Sense of School Membership (Goodenow, 1993)
- L. Collective UH Manoa Self Esteem (adapted from Luhtanen & Crocker, 1992)
- M. Use of academic support services (Yeager et al., 2015)
- N. Close Friends and Social Support (Yeager et al. 2015)
- O. Relationship with mentor (Yeager et al., 2015)

Other

- P. Persistence
- Q. Demographics

Self: general

A. SDO_{7(s)} Scale

Instructions: Show how much you favor or oppose each idea below by selecting a number from 1 to 7 on the scale below. You can work quickly; your first feeling is generally the best.

(1=strongly oppose, 7= strongly favor)

1. An ideal society requires some groups to be on top and others to be on the bottom.
2. Some groups of people are simply inferior to other groups.
3. No one group should dominate in society
4. Groups at the bottom are just as deserving as groups at the top.
5. Group equality should not be our primary goal
6. It is unjust to try to make groups equal.
7. We should do what we can to equalize conditions for different groups.
8. We should work to give all groups an equal chance to succeed.

B. Locus of Control (Rotter, 1989)

Scale: 1 = Not at all true
2 = Slightly true
3 = Somewhat true
4 = Very true
5 = Completely true

Questions:

1. When I make plans, I am almost certain I can make them work.
2. Many unhappy things in people's lives are due to bad luck.
3. You have very little influence over the things that happen to me.

C. Big Five Personality Inventory: Contentiousness and Openness to experience subscales (John & Srivastava, 1999)

Scale: 1 = Not at all true
2 = Slightly true
3 = Somewhat true
4 = Very true
5 = Completely true

Questions:

1. I am neat and orderly
2. I pay attention well and can concentrate on things.
3. I plan things ahead. I think before I do something.
4. I can be trusted, I am reliable and dependable.
5. I am curious. I like to learn and experience new things.
6. I daydream. I often get lost in thought or a fantasy world.
7. I am creative in the way I think, work and play.
8. I have a good imagination.

D. Grit (Duckworth & Quinn, 2009)

Scale: 1 = Not at all true
2 = Slightly true
3 = Somewhat true
4 = Very true
5 = Completely true

Questions:

1. New ideas and projects sometimes distract me from previous ones.
2. Setbacks don't discourage me
3. I have been obsessed with a certain idea or project for a short time but later lost interest.
4. I am a hard worker.
5. I often set a goal but later choose to pursue a different one.
6. I have difficulty maintaining my focus on projects that take more than a few months to complete.
7. I finish whatever I begin.
8. I am diligent. I won't give up.

Self: Perception of Academic Skills

E. Academic Self-control (Patrick & Duckworth, 2013)

Scale: 1 = Not at all true
 2 = Slightly true
 3 = Somewhat true
 4 = Very true
 5 = Completely true

Questions:

1. I come to class prepared
2. I pay attention and resist distraction in class.
3. I remember and follow directions.
4. I get to work right away rather than procrastinating.

F. Perceived College Skills: The College Self-Efficacy Inventory (Solberg, O'Brien, Villareal, Kennel & Davis, 1993)

How confident are you that you could successfully complete the following tasks:...?

0 = not at all confident 9 = extremely confident

1. Research a term paper.
2. Write Course Papers.
3. Do well on your exams.
4. Take good class notes.
5. Keep up to date with your schoolwork.
6. Manage time effectively.
7. Understand your textbooks.
8. Get along with others you live with.
9. Socialize with others you live with.
10. Divide space in your residence.
11. Divide chores with others you live with.
12. Participate in class discussions.
13. Ask a question in class.
14. Get a date when you want one.
15. Talk to your professors/instructors.
16. Talk with academic and support staff.
17. Ask a professor a question outside of class.
18. Make new friends at college.
19. Join a student organization.

G. Growth Mindset of Intelligence (Hong, et al., 1999)

Scale: 1 = Strongly Disagree
 2 = Disagree
 3 = Mostly Disagree
 4 = Mostly Agree
 5 = Agree
 6 = Strongly Agree

Questions:

1. You have a certain amount of intelligence, and you really can't do much to change it.
2. Your intelligence is something about you that you can't change very much.
3. You can learn new things, but you can't really change your basic intelligence.

H. Test Anxiety (Selected from Spielberger, 1980)

Scale: 1 = Not at all true
2 = Slightly true
3 = Somewhat true
4 = Very true
5 = Completely true

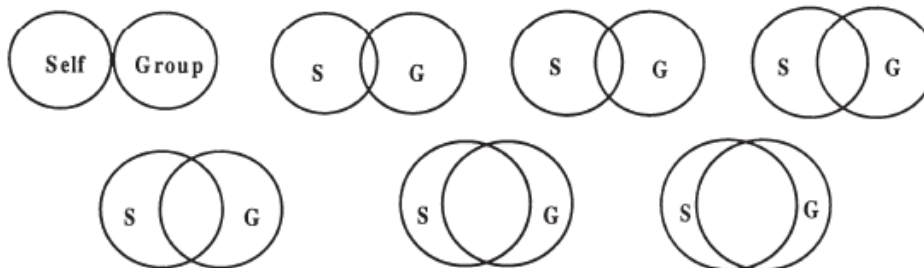
Questions:

1. Even when I'm well prepared for a test, I feel very nervous about it.
2. During a test I often get so nervous I forget the answers that I know.
3. As soon as an exam is over, I try to stop worrying about it, but I just can't
4. During a test I often think about what will happen if I fail.

Salient Ingroups

I. Inclusion of the Ingroup in the Self Scale (Tropp & Wright 2001)

Directions: Select the pair of circles that you feel best represents your own level of identification with the group listed.



1. Undergraduate students at UH Manoa
2. Undergraduate students on the Mainland
3. European Americans
4. Asian Americans
5. Hawaii Locals
6. Residents of your home town
7. Students in your major (only if declared major)

J. Collective Ingroup Self Esteem

INSTRUCTIONS: We are all members of different social groups or social categories. Think about a specific group that you belong to here on Oahu in responding to the following statements. If no organized group comes to mind, think about your group of friends, your

roommates or those that live on the same floor as you. In the box below, please indicate what type of group comes to mind (ex. friends, community organization, family, religious group, etc)

There are no right or wrong answers to any of these statements; we are interested in your honest reactions and opinions. Please read each statement carefully, and respond by using the following scale from 1 to 7:

- 1= Strongly Disagree
- 2=Disagree
- 3=Disagree Somewhat
- 4=Neutral
- 5=Agree Somewhat
- 6=Agree Strongly
- 7=Agree Completely

1. I am a worthy member of my group.
2. I often regret that I am a member of my group.
3. Overall, my group is considered good by others.
4. Overall, being a member of my group has very little to do with how I feel about myself.
5. I feel I don't have much to offer my group.
6. In general, I'm glad to be a member of my group.
7. Most people consider this group, on the average, to be more ineffective than other groups.
8. Being a member of my group is an important reflection of who I am.
9. I am a cooperative participant in the activities of my group.
10. Overall, I often feel that my group members are not worthwhile.
11. In general, others respect my group.
12. Being a member of my group is unimportant to my sense of what kind of a person I am.
13. I often feel I'm a useless member of my group.
14. I feel good about my group.
15. In general, others think that my group members are unworthy.
16. In general, belonging to my group is an important part of my self image.

University Identity

K. Psychological Sense of School Membership (PSSM, Goodenow, 1993)

The following questions ask about your feelings about school. Please answer items regarding how you feel about the University you are currently attending. Please choose the number that indicates how true each statement is for you.

- 1 = Not at all true
- 2 = Rarely true
- 3 = Somewhat true
- 4 = Mostly true
- 5 = Always true

1. I feel like a real part of this school.
2. People here notice when I am good at something.
3. It is hard for people like me to be accepted here.
4. Other students in this school take my opinions seriously.
5. Most professors at this school are interested in me.
6. Sometimes I feel as if I don't belong here.
7. There is at least one professor or other adult in this school I can talk to if I have a problem.
8. People at this school are friendly to me.
9. Professors here are not interested in people like me.
10. I am included in lots of activities at this school.
11. I am treated with as much respect as other students.
12. I feel very different from most other students here.
13. I can really be myself at this school.
14. The professors here respect me.
15. People here know I can do good work.
16. I wish I were in a different school.
17. I feel proud of belonging to this school.
18. Other students here like me the way I am.

L. Collective UH Manoa Self Esteem

INSTRUCTIONS: We are all members of different social groups or social categories. We would like you to consider your membership as a student at UH Manoa in responding to the following statements. There are no right or wrong answers to any of these statements; we are interested in your honest reactions and opinions. Please read each statement carefully, and respond by using the following scale from 1 to 7:

- 1= Strongly Disagree
- 2= Disagree
- 3= Disagree Somewhat
- 4= Neutral
- 5= Agree Somewhat
- 6= Agree Strongly
- 7=Agree Completely

1. I am a worthy member of UH Manoa.
2. I often regret that I am a student at UH Manoa.
3. Overall, UH Manoa is considered good by others.
4. Overall, being a student at UH Manoa has very little to do with how I feel about myself.
5. I feel I don't have much to offer the UH Manoa community.
6. In general, I'm glad to be a member of UH Manoa.
7. Most people consider UH Manoa, on the average, to be more ineffective than other universities.
8. Being a student at UH Manoa is an important reflection of who I am.
9. I am a cooperative participant in the activities at UH Manoa.
10. Overall, I often feel that UH Manoa students are not worthwhile.

11. In general, others respect UH Manoa.
12. Being a student at UH Manoa is unimportant to my sense of what kind of a person I am.
13. I often feel I'm a useless member of UH Manoa.
14. I feel good about attending UH Manoa.
15. In general, others think that UH Manoa students are unworthy.
16. In general, belonging to UH Manoa Is an important part of my self image.

M. Use of academic support services:

Scale 1 = Never

2 = Once

3 = 2-3 times

4 = 4-6 times

5 = 7 or more times

So far this semester, how often have you...

1. Met with a professor or TA outside of class?
2. Met with a college advisor
3. Sought academic tutoring (through the writing center, or other campus tutoring options)

N. Close Friends and Social Support (Yeager et al. 2015)

Scale 1=Strongly disagree

7=Strongly agree

1. Thinking back on this past academic year, I feel that I have made some close friends at UH Manoa
2. I feel that there is no one at UH Manoa I can share my personal worries and fears with.
3. When I need suggestions on how to deal with a personal problem, I know someone at UH Manoa to turn to.

O. Persistence

How likely are you to return to UH Manoa next Fall?

1=Likely

2-Somewhat likely

3=Unsure

4=Somewhat unlikely

5=Unlikely

If Unlikely, what do you expect to do instead?

transfer to the mainland

transfer to another school on HI

Work

Other

How likely are you to graduate from UH Manoa?

1=Likely

2-Somewhat likely
3=Unsure
4=Somewhat unlikely
5=Unlikely

If Unlikely, what do you expect to do instead?
transfer to the mainland
transfer to another school on HI
Work
Other

P. Demographics:

- Race
- HS GPA
- CURRENT GPA
- Year at UH

- Subjective SES scale: SES Ladder (Epel, Castellazzo, & Ickovics 2000)

Participants will see a drawing of a ladder with the following instructions: "Think of this ladder as representing where people stand in our society. At the top of the ladder are the people who are the best off, those who have the most money, most education, and best jobs. At the bottom are the people who are the worst off, those who have the least money, least education, and worst jobs or no job." Place an X on the rung that best represents where you think your family stands on this ladder.

Appendix 2: Study 2 Interview Questions

1. Why did you choose this college?

2. What do you like about attending school here?

Probe: what resources on campus have you found helpful?

3. What do you dislike about attending school here?

Probe: what could be added on campus to improve your experience here?

4. What were your expectations of what it would be like to attend school here at UH?

5. What has turned out to be different than what you expected?

6. What advice do you wish you received before coming here?

Probe: If someone similar to you was considering attending UH Manoa, what advice would you offer?

7. What do you think would be different if you attended college on the Mainland?

8. What are your thoughts about diversity on the UH Manoa campus?

9. Think back to your first semester at UH Manoa, what would you have done differently?

10. Is there anything I haven't asked that would be helpful for me to know?

NOTE: Additional probes to be added depending on participant responses, some sample probes are included.